



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,741	04/06/2001	Vivek Amir Jairazbhoy	10541/277	6704

757 7590 02/27/2002

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60610

EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Offic Action Summary

Application No.	Applicant(s)	
09/827,741	JAIRAZBHOY ET AL.	
Examiner	Art Unit	
Tho V Duong	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 07 December 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) 5,7-9,12-15 and 21 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-4,6,10,11 and 16-20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 06 April 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 . 6) Other:

## DETAILED ACTION

### ***Election/Restrictions***

Claims 5,7-9 and 12-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5. Applicant has indicated that claim 21 reads on the elected species of figure 1. However, claim 21 does not appear to read on figure 1. The claimed subject matter "...the flow separator divides streams of vaporized coolant between the inner and the outer wall of the container" is not disclosed in the elected species of figure 1 but the non-elected species of figure 4. Therefore, claim 21 is withdrawn from further consideration.

Applicant's election with traverse of species of figure 1 in Paper No. 4 is acknowledged. The traversal is on the ground(s) that all of the species can be efficiently searched together. This is not found persuasive because the basis for restriction is that the species as set forth in the requirement are patentably distinct from one another.

The requirement is still deemed proper and is therefore made FINAL.

### ***Drawings***

The drawings are objected to because the wick (110,104), tube (108) and condenser plate (114) appears to have the same cross-hatch section in figure 1B despite the fact that they are made of different material as disclosed in the specification.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the condenser plate as described in the specification. Figure 1B indicates that reference (114) is a condenser plate. However, this indicated part is not different from the communicating wick structure (104). In addition, the outer wall (108) and the wick (110) do not appear in figure 1B to be two different parts as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4,6,10-11 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As regards claim 1,10 and 16, the claimed subject matter of "a container having a receptacle" is not supported in the

disclosure. As described in the disclosure, the receptacle (102) is connected to the container but not a part of the container.

Claim 2 recites the limitation "the outer wall" in line 2 and "the inner wall" in line 3. There are insufficient antecedent basis for these limitations in the claim.

Claims 1-4,6,10-11 and 16-20 are further rejected as best can be understood by the examiner.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,4,6,10, 11, 16-17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirkpatrick (US 3,677,329). Kirkpatrick discloses (figures 1 and 3) a device comprising a retainer (20) for receiving an electronic device (16); a container (14) defining a chamber (25) that is partially filled with a liquid coolant (34); a first wick structure (28) lining in the outer wall (24); a second wick structure (26) lining in the inner wall or conduit (22); a communicating wick structure (30) that are periodically connects the first and second wick structures so that heat is transferred from the electronic device to evaporate the liquid coolant (34) which then condenses near the conduit (22); and the wick structure (30) at the bottom and top of the container is considered to be readable on the claimed limitation of flow dividers.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkpatrick in view of Paterson (US 5,529,115). Kirkpatrick substantially discloses all of applicant's claimed invention as discussed above except for the limitation of a condenser plate positioned within the container. Paterson discloses (figure 4) a heat pipe (40) contains conduits (62) for flowing of coolant liquid and condenser plates (48) to condense vaporized coolant which rises away from the heating source. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Paterson's teaching in Kirkpatrick's heat pipe to condensate vaporized coolant which rises away from the heating source.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ranken et al. (US 3,971,634) discloses a wick structure connected the outer and inner pipe.

Yatsuhashi et al. (US 4,842,053) discloses heat pipe that has a conduit inserted in a container connected by a wick structure.

Leinoff et al. (US 4,003,427) discloses heat pipe fabrication that has a wick structure connected a core to an outer wall.

Russel (US 4,320,246) discloses an electrical device mounted on a heat pipe.

Kosson et al. (US 4,019,571) discloses a gravity assisted wick system for condensers, evaporators and heat pipe.

Iriarte (US 4,058,159) discloses concentric tube heat pipe.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703)305-0768. The examiner can normally be reached on from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703)308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7764.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.

Tho Duong

February 6, 2002

Henry Bennett  
Supervisory Patent Examiner  
Group 3743

